

BIO 295-14: ENVIRONMENTAL WORKSHOP (TWO CREDITS)
SUMMER-II 2004

BARRY UNIVERSITY - SCHOOL OF NATURAL AND HEALTH SCIENCES

Class: 9:00 a.m. – 3:00 p.m. M T W & R - SNHS 235
Course Director: Jeremy Montague, Ph.D.
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OFFICE TELEPHONE & EMAIL POLICY: I answer my office telephone when I am in my office, and my automated voicemail records messages when I am away from the phone. However, students will generally find email to be a much more reliable, a much more efficient, and a much more accurate medium of communication. I ask students to contact me by way of email (if conveniently available) instead of by way of telephone voicemail.

OFFICE HOURS: M T W R from 8:00 a.m. – 9:00 a.m. & noon – 1:00 p.m.; other hours by appointment only.

PREREQUISITES : None.

DESCRIPTION: This course introduces the student to lab and field techniques of research found commonly in the NOAA (National Oceanic and Atmospheric Administration)-related sciences.

DISTRIBUTION/GENERAL EDUCATIONAL LEARNING OUTCOME: The table below identifies and describes specific university and school distribution goals and intended outcomes in this course.

Distribution Goals	Academic Program Outcome	Intended Learning Outcome Bio 295-14 Env. Workshop
Goal #6: A&S Understand and use scientific, environmental, and technological concepts, assess their interrelationship with and their impact on human activity in order to make decisions that respond to the values and interests of the individual and society. Goal #6: University To develop an understanding of scientific concepts with emphasis upon scientific observation, scientific methods, and analytical thinking.	Goal #1 To provide to a culturally and experientially diverse student body a liberal, professional education in an environment that fosters motivated, self-directed analytical thinking, learning, and research in the biological, biomedical and health sciences Goal # 2 To offer didactic and laboratory courses that meet the requirements of Barry University and entrance into professional programs and careers Goal #3 To develop a sense of ethical and social responsibility through opportunities in community service with on- and off- campus components.	One of the intended learning outcomes of this course is the ability of a student to collect and interpret scientific data, with reference to scientific literature. The student will develop spreadsheet databases and write results in scientific terminology.

RATIONALE: This course will develop the professional skills and work habits in college students seeking careers in the NOAA-related sciences.

GOALS: Understanding of scientific inquiry and methodology in the NOAA-related sciences.

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OBJECTIVES: Development of field and lab-based methodologies, with particular emphasis on computer competencies and web-based inquiry.

INSTRUCTIONAL METHODS: Classroom lecture combined with lab and field investigation.

REQUIRED READINGS: All reading resources will be provided by the instructor.

LOGBOOK: Each student will be given a bound notebook (blank) at the beginning of the semester. A simple written log of each daily activity must be kept in ink, with dates and times accurately logged. All class notes, observations, interpretations, *etc.*, must be kept in ink in the logbook. I will grade the logbooks periodically on completeness, neatness, accuracy, *etc.*

POWERPOINT® FILES: I write and use Microsoft PowerPoint™ slides for some of the class presentations, and I post these files on the course website as a courtesy to the students. Students may download and save these files for personal use *only*; the commercial duplication, transcription, publication, sale or transfer of any of my PowerPoint™ files constitutes academic misconduct on the part of the student and may result in appropriate University sanction. Students are **NOT** required or obligated to use these slides. The PowerPoint™ slides I provide do **NOT** represent detailed notes of any sort; detailed class notes are solely the responsibility (and solely the property) of the individual student.

EVALUATION: Final semester grade:

- 50% from hand-in assignments
- 30% from logbook evaluation
- 10% from 5-minute oral presentation (last day of class; topic to be determined)
- 10% from subjective evaluation of effort & participation

POSTED SCORES: I will post scores by Barry ID# *only* with the written approval of the student. Scores will not be posted in alphabetical order.

FINAL GRADES: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F < 60%

DISABILITIES ACT: All graded exercises will be available in compliance with the Americans with Disabilities Act (ADA) for any students eligible under this law. Questions about eligibility and compliance should be addressed to the Director of Disability Services, Thompson Hall 206 (305-899-3488).

ATTENDANCE POLICY: I expect regular and punctual attendance in each scheduled activity. Absences and tardiness will lead to a lowering of the final grade as determined by the instructor.

MAKE-UP POLICY: Some of the exercises planned in this course, if missed for a legitimate reason, can be made up (*e.g.*, lab sampling), some of the other exercises (*e.g.*, field sampling) cannot. I can allow make-ups for missed work only for legitimate reasons (*i.e.*, illness documented by a note from a physician), and only in the event of lab exercises that do not affect my ordinary work load.

DISHONESTY: Cheating and plagiarism (taking credit for someone else's work) will not be tolerated. I will take every precaution to eliminate opportunities for dishonesty; it is the student's responsibility to remain above suspicion. Cheating on an exam will result in a zero for that exam for all active participants, and no make-up exam will be offered. A second cheating incident will result in an F for the course for each second-time participant, and both incidents will be fully-reported in writing to the participants' dean(s). The same policy covers any plagiarized hand-in report(s).

STUDENT BEHAVIOR: I expect common courtesy and respect for all students and faculty in our classrooms at all times. Disruptive and/or annoying behavior during lectures or exams will not be tolerated. Persistent offenders will be removed from class and subjected to appropriate University sanctions. I also expect that, barring medical emergencies, students will remain in their seats throughout the lecture; this will minimize unnecessary distractions to other students.

AVAILABILITY: I scheduled eight office hours during the week (see Office Hours above); during these times I am available in my office for any discussions or questions concerning this course. On rare occasions I might be across the hall

BIO 295-14: ENVIRONMENTAL WORKSHOP (TWO CREDITS)
SUMMER-II 2004

using the photocopier, but (barring unexpected emergencies) I am never more than a few minutes away from my desk or phone during scheduled office hours. I will try to accommodate students at all times. However, please understand that *outside* of my scheduled office hours, I am occasionally unavailable to meet with students. Unscheduled, drop-by visits *outside* of posted office hours can sometimes frustrate both the student and the professor; the best strategy for unscheduled visits *outside* of office hours is to email or phone ahead to see if I can meet with you.

AUDIO AND VIDEO RECORDERS: Any student is welcome to make audio or video recordings of my lectures for his or her own personal use; the student does not need my permission to make such recordings. However, this is **NOT** a general policy that applies to other courses at Barry University. Additionally, the commercial duplication, transcription, publication, sale or transfer of any such recordings constitutes academic misconduct on the part of the student and may result in appropriate University sanction.

GENERAL RUBRIC FOR ASSESSMENT OF WRITING: The criteria below apply to all hand-in reports and logbooks; they are based upon a total of five points per writing exercise.

	Points = 1.0	Points = 0.5	Points = 0.0
Written Communication Organization Points awarded: _____	The purpose of the writing is clear. The reader clearly understands the concept of the paper and the significance of the data provided.	The purpose of the writing is clear. The concept can be determined and the significance of the data is understood.	The purpose of the writing is vague. The reader has no understanding of the significance of the information provided.
Written Communication Language Use Points awarded: _____	Writing is excellent, word usage, spelling, grammar and punctuation is excellent.	Writing is sufficient, adequate use of wording, grammar and punctuation, some errors.	Writing is poor, deficiencies in word use, grammar, punctuation and presentation.
Factual relevance and correctness Points awarded: _____	Facts relevant and correct as stated.	Some deviations from relevant and correct facts.	No relevant facts correctly stated.
Identification of problem Points awarded: _____	Problem is defined explicitly using appropriate scientific terms. Presentation is clear and logical.	Problem defined satisfactorily. Presentation is clear but issues are not addressed thoroughly.	Problem is not defined, presentation is neither clear nor logical.
Critical thinking skills Points awarded: _____	Concepts are clearly expressed; analysis is logical and complete.	Concepts are stated but not thoroughly. Analysis is mostly logical but flawed in some places.	Concepts are unclear, analysis is minimal or absent.

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SUMMER-II 2004

CLASS SCHEDULE: The tentative schedule was devised before the first day of class. I may make minor revisions to the course material as needed during the semester. I do not expect any changes in test dates.

	<u>Date</u>	<u>Activities</u>
M	14-Jun	orientation; notebook techniques
T	15-Jun	field sampling (Key Biscayne)
W	16-Jun	butterfly experiment & field sampling
R	17-Jun	experimental design
M	21-Jun	field sampling (Elaine Gordon Park)
T	22-Jun	aquarium project
W	23-Jun	excel exercises & scientific literature
R	24-Jun	excel exercises & scientific literature
M	28-Jun	techniques of presentation
T	29-Jun	evaluation of notebooks
W	30-Jun	evaluation of notebooks
R	1-Jul	student presentations